

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	51699	freimuth.in. or zhang.in. or howitt.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L2	742	"Department of Energy".as.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L3	49956	(peptide or protein) NEAR2 (extension or fragment)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L4	87403	(plasmid or vector) NEAR3 expression	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L5	3056	"net negative charge"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L6	40457	"negative charge"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L7	65235	(fusion or chimer\$) NEAR3 (construct or protein or gene)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L8	0	"-15 to -20" or "-10 to -14" or "-5 to -9" or "-2 to -4"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L9	74	"ordered conformation" or "nonordered conformation" or "non-ordered conformation"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L10	86	"t7" WITH 10B	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L11	1689	(freimuth.in. or zhang.in. or howitt.in.) and ((peptide or protein) NEAR2 (extension or fragment))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26

L12	1560	((freimuth.in. or zhang.in. or howitt.in.) and ((peptide or protein) NEAR2 (extension or fragment))) and ((plasmid or vector) NEAR3 expression)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L13	2	(((freimuth.in. or zhang.in. or howitt.in.) and ((peptide or protein) NEAR2 (extension or fragment))) and ((plasmid or vector) NEAR3 expression)) and "peptide extension"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L14	5834	((peptide or protein) NEAR2 (extension or fragment)) SAME ((plasmid or vector) NEAR3 expression)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L15	2	(((peptide or protein) NEAR2 (extension or fragment)) SAME ((plasmid or vector) NEAR3 expression)) and ("ordered conformation" or "nonordered conformation" or "non-ordered conformation")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L16	22638	((plasmid or vector) NEAR3 expression) SAME ((fusion or chimer\$) NEAR3 (construct or protein or gene))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L17	88	(((plasmid or vector) NEAR3 expression) SAME ((fusion or chimer\$) NEAR3 (construct or protein or gene))) and "peptide extension"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L18	4	(((plasmid or vector) NEAR3 expression) SAME ((fusion or chimer\$) NEAR3 (construct or protein or gene))) and "peptide extension") and "net negative charge"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L19	321	"peptide extension"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L20	236	"peptide extension" and ((plasmid or vector) NEAR3 expression)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L21	190	("peptide extension" and ((plasmid or vector) NEAR3 expression)) and ((fusion or chimer\$) NEAR3 (construct or protein or gene))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26

L22	190	(("peptide extension" and ((plasmid or vector) NEAR3 expression)) and ((fusion or chimer\$) NEAR3 (construct or protein or gene))) and ((fusion or chimer\$) NEAR3 (construct or protein or gene))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L23	24829	protein WITH solubil\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L24	3	(protein WITH solubil\$) SAME "peptide extension"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L25	1	("t7" WITH 10B) and "peptide extension"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L26	33	("t7" WITH 10B) and ((plasmid or vector) NEAR3 expression)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L27	89	(protein WITH solubil\$) and "peptide extension"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L28	40457	"net negative charge" or "negative charge"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L29	33	((protein WITH solubil\$) and "peptide extension") and ("net negative charge" or "negative charge")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L30	14	"negative charge" and ("t7" WITH 10B)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L31	51467	"amino acid" WITH (substitution or modification)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L32	61	("amino acid" WITH (substitution or modification)) SAME "net negative charge"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L33	4564	"protein folding"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26

L34	2507	"native conformation"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L35	406	"protein folding" and "native conformation"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L36	295	("protein folding" and "native conformation") and ((plasmid or vector) NEAR3 expression)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L37	228	(("protein folding" and "native conformation") and ((plasmid or vector) NEAR3 expression)) and ((peptide or protein) NEAR2 (extension or fragment))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L38	18	((("protein folding" and "native conformation") and ((plasmid or vector) NEAR3 expression)) and ((peptide or protein) NEAR2 (extension or fragment))) and "negative charge"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L39	1	("protein folding" and "native conformation") and ("t7" WITH 10B)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L40	6	("protein folding" and "native conformation") and (protein WITH "10b")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L41	209	(("t7" or "T7") SAME 10B)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L42	29	((("t7" or "T7") SAME 10B)) and "phage display"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L43	20	((("t7" or "T7") SAME 10B)) and "phage display") and "protein expression"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L44	2	"5366871".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L45	5	"5989868" or "6077689".in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26

L46	7	"5989868" or "6077689".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L47	192	"5766905" or "5989868" or "5654176" or "4923967" or "5202239" or "5302526" or "6395875" or "5935824" or "6077689".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L48	18	("5766905" or "5989868" or "5654176" or "4923967" or "5202239" or "5302526" or "6395875" or "5935824" or "6077689").pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L49	2	"5654176".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L50	2	"4923967".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L51	2	"5202239".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L52	2	"6395875".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L53	209	"t7" SAME 10b	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L54	0	("t7" SAME 10b) and "modified 10B"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L55	2	("t7" SAME 10b) and (modified NEAR8 10b)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L56	46449	"T7" or "t7"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L57	13	("T7" or "t7") NEAR10 "10b protein"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26

L58	301	10b NEAR5 (protein or capsid)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L59	4	(10b NEAR5 (protein or capsid)) WITH (altered or mutat\$ or modified)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L60	22	(10b NEAR5 (protein or capsid)) SAME(altered or mutat\$ or modified)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L61	0	(10b NEAR5 (protein or capsid)) and "carbox\$ termin\$"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L62	0	(10b NEAR5 (protein or capsid)) and "amino termin\$"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L63	27862	carboxy NEAR1 termin\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L64	2509	fusion WITH (carboxy NEAR1 termin\$)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L65	2	(fusion WITH (carboxy NEAR1 termin\$)) SAME (10b NEAR5 (protein or capsid))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L66	16	(fusion WITH (carboxy NEAR1 termin\$)) and (10b NEAR5 (protein or capsid))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L67	131	10b NEAR2 (protein or capsid)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L68	8	(fusion WITH (carboxy NEAR1 termin\$)) and (10b NEAR2 (protein or capsid))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L69	43302	(carboxy NEAR1 termin\$) or "C-terminus"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26

L70	6519	((carboxy NEAR1 termin\$) or "C-terminus") WITH fusion	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L71	20	(10b NEAR2 (protein or capsid)) and (((carboxy NEAR1 termin\$) or "C-terminus") WITH fusion)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L72	2	"5989868".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L73	1	"Nus A protein"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L74	154	medaka	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L75	9284	"protein B"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L76	1	medaka NEAR2 "protein B"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L77	46555	fukamachi.in. or shima.in. or shimada.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L78	1	(fukamachi.in. or shima.in. or shimada.in.) and medaka	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L79	51699	Freimuth.in. or zhang.in. or howitt.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L80	2	L79 and "peptide extension"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L81	1	L80 and "61"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26

L82	5749	"61" WITH "amino acid"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L83	1	L81 and L82	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L84	51699	freimuth.in. or zhang.in. or howitt.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L85	49956	(peptide or protein) NEAR2 (extension or fragment)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L86	1689	L84 and L85	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L87	1	"57 residue" SAME "10B"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L88	3	"57 amino acid" SAME "10B"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L89	65	(enhanced or increased) WITH "protein solubility"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L90	32	L89 and L85	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L91	13	L90 and "expression plasmid"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L92	31	L90 and ("expression plasmid" or "expression vector")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L93	31	L92 and fusion	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26

L94	25	L93 and chimer\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L95	83	(enhanced or increased) WITH "protein folding"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L96	3	L95 and "10B" and "T7"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L97	49623	("expression plasmid" or "expression vector") and (fusion or chimer\$)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L98	21602	(enhanced or increased) WITH ("protein folding" or "native folding" or "solubility")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L99	1554	L97 and L98	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L100	12	L99 and ("10B" with protein)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L101	5	"5366871"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L102	1	L101 and (folding or solubility)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/05 10:26
L103	86	"t7" WITH "10B"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26
L104	1	L103 and freimuth.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/05 10:26



PALM INTRANET

Day : Friday
Date: 8/5/2005
Time: 11:16:52

Inventor Name Search

Enter the **first few letters** of the Inventor's Last Name.

Additionally, enter the **first few letters** of the Inventor's First name.

Last Name

First Name

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FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 11:18:40 ON 05 AUG 2005

L1 198620 S FREIMUTH?/AU OR ZHANG?/AU OR HOWITT?/AU
L2 1385 S "PEPTIDE EXTENSION" OR "SOLUBILITY PARTNER" OR "CHAPERONE PRO
L3 80217 S (PLASMID OR VECTOR) (S) EXPRESSION
L4 9249 S "NEGATIVE CHARGE"
L5 124012 S (FUSION OR CHIMER?) (S) (CONSTRUCT OR PROTEIN OR GENE)
L6 5488 S "PROTEIN FOLD?" OR "NATIVE CONFORMATION" OR "NATIVE FOLD"
L7 4987 S PROTEIN (S) SOLUBILITY
L8 177643 S C-TERMINAL OR "CARBOXY TERMINAL" OR "CARBOXY END"
L9 22 S T7B OR "10B GENE"
L10 2 S "ENHANCED PROTEIN FOLDING"
L11 35 S L1 AND L2
L12 19 S L11 NOT PY>=2003
L13 7 DUP REM L12 (12 DUPLICATES REMOVED)
L14 0 S (SET1 OR SET2 OR SET3) AND L6
L15 4 S SOLUBILITY (2W) "ENHANCEMENT TAG"
L16 2 DUP REM L15 (2 DUPLICATES REMOVED)
L17 21 S L8 (S) L2
L18 9 DUP REM L17 (12 DUPLICATES REMOVED)
L19 0 S L1 AND L6 AND L4
L20 17 S L6 AND L4
L21 6 DUP REM L20 (11 DUPLICATES REMOVED)
L22 21 S "AMINO ACID RESIDUES" (S) L4
L23 0 S L22 AND L6
L24 0 S L22 AND L8
L25 0 S L22 AND L9
L26 2 S T7 (5W) "10B"
L27 1 DUP REM L26 (1 DUPLICATE REMOVED)
L28 0 S "10B" AND "PROTEIN TAG"
L29 35 S L1 AND L2
L30 0 S L29 AND L3
L31 3 S L29 AND L5
L32 1 DUP REM L31 (2 DUPLICATES REMOVED)

=>

L32 ANSWER 1 OF 1

ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE:

AUTHOR:

CORPORATE SOURCE:

CONTRACT NUMBER:

SOURCE:

PUB. COUNTRY:

DOCUMENT TYPE:

LANGUAGE:

FILE SEGMENT:

ENTRY MONTH:

ENTRY DATE:

MEDLINE on STN

1999455251 MEDLINE

PubMed ID: 10523851

gamma-heregulin is the product of a chromosomal translocation fusing the DOC4 and HGL/NRG1 genes in the MDA-MB-175 breast cancer cell line.

DUPLICATE 1

Wang X Z; Jolicoeur E M; Conte N; Chaffanet M; Zhang Y; Mozziconacci M J; Feiner H; Birnbaum D; Pebusque M J; Ron D

Department of Medicine, Skirball Institute of Biomolecular Medicine, Kaplan Cancer Center, NYU Medical Center, New York, NY 10016, USA.

CA60945 (NCI)

Oncogene, (1999 Oct 7) 18 (41) 5718-21.

Journal code: 8711562. ISSN: 0950-9232.

ENGLAND: United Kingdom

Journal; Article; (JOURNAL ARTICLE)

English

Priority Journals

199911

Entered STN: 20000111

Last Updated on STN: 20000111

Entered Medline: 19991122

AB gamma-heregulin is a recently described novel isoform of the heregulin/neuregulin class of EGF-like ligands that bind to and activate receptors of the ErbB family. Deregulated signaling through the heregulin-ErbB pathway is thought to be implicated in the development of a subset of human breast cancers. gamma-heregulin has been found to be expressed in the culture supernatant of MDA-MB-175, a breast carcinoma cell line. gamma-heregulin is characterized by the presence of a large N-terminal **peptide extension** that is not found in other heregulin isoforms. Here we report that this unique N-terminal extension of gamma-heregulin is identical to the N-terminus of DOC4, a product of a recently identified CHOP-dependent stress-induced gene. Human DOC4 and the heregulin-encoding genes map to different chromosomes and the MDA-MB-175 cell line contains a chromosomal translocation that leads to the fusion of DOC4 and HGL, on chromosomes 11 and 8, respectively. Thus, gamma-heregulin is a product of a mutant **fusion gene** and not a bona fide normal isoform. We speculate that the mutation may be selected for by virtue of its ability to activate ErbB signaling through the production of an autocrine ligand.

=>

L16 ANSWER 2 OF 2

ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE:

AUTHOR:

CORPORATE SOURCE:

CONTRACT NUMBER:

SOURCE:

PUB. COUNTRY:

DOCUMENT TYPE:

LANGUAGE:

FILE SEGMENT:

ENTRY MONTH:

ENTRY DATE:

MEDLINE on STN

2002016006 MEDLINE

PubMed ID: 11430750

A **solubility-enhancement tag**

(SET) for NMR studies of poorly behaving proteins.

Zhou P; Lugovskoy A A; Wagner G

Department of Biological Chemistry and Molecular
Pharmacology, Harvard Medical School, Boston, MA 02115,
USA.

GM 47467 (NIGMS)

Journal of biomolecular NMR, (2001 May) 20 (1) 11-4.

Journal code: 9110829. ISSN: 0925-2738.

Netherlands

Journal; Article; (JOURNAL ARTICLE)

English

Priority Journals

200112

Entered STN: 20020121

Last Updated on STN: 20020924

Entered Medline: 20011217

AB Protein-fusion constructs have been used with great success for enhancing expression of soluble recombinant protein and as tags for affinity purification. Unfortunately the most popular tags, such as GST and MBP, are large, which hinders direct NMR studies of the fusion proteins. Cleavage of the fusion proteins often re-introduces problems with solubility and stability. Here we describe the use of N-terminally fused protein G (B1 domain) as a non-cleavable **solubility-enhancement tag** (SET) for structure determination of a dimeric protein complex. The SET enhances the solubility and stability of the fusion product dramatically while not interacting directly with the protein of interest. This approach can be used for structural characterization of poorly behaving protein systems, and would be especially useful for structural genomics studies.

=>

N. Tammel
fca